

FACT SHEET

This fact sheet is a companion document to the National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Process Water, Storm Water, and Mine Dewatering Water Discharges Associated With Sand and Gravel Operations, Rock Quarries, and Similar Mining Operations, Including Stockpiles of Mined Materials, Concrete Batch Operations and Hot Mix Asphalt Operations issued by Department of Ecology (the department) on July 6, 1994. This general permit will allow discharge of wastewater to waters of the State of Washington by the operations covered under this permit.

This fact sheet explains the nature of the proposed discharge, the department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions. Public involvement information is contained in Appendix A.

PERMIT GOAL AND SUMMARY

The goal of this general permit is to protect ground water, surface water, and the quality of sediment in waters of the state by limiting the discharge of pollutants in wastewater, mine dewatering water, and storm water from mines and quarries, hot mix asphalt plants, and concrete batch plants. The pollutants that are limited in this general permit result from the processing of mined material, storm water runoff, mine dewatering, and from ancillary operations. This general permit limits the discharge of pollutants to surface waters under the authority of the Federal Water Pollution Control Act (U.S.C.S. 1251) and limits the discharge of pollutants to surface and ground water under the authority of Chapter 90.48 RCW. Methods of compliance with this permit include chemical or physical treatment of the wastewater and implementation of storm water and sediment control Best Management Practices (BMPs).

A schedule of compliance is included to allow facilities to develop the required Storm Water Pollution Prevention Plan, Erosion and Sediment Control Plan, Monitoring Plan, implement BMPs, and design and construct treatment systems necessary to achieve compliance with the turbidity limits for process water, the turbidity limit for storm water, and zero discharge to ground water for certain subcategories.

Limitations are based on federal and state technology-based requirements and state requirements for maintenance of water quality in surface and ground waters.

TABLE OF CONTENTS

	<u>Page</u>
PERMIT COVERAGE	4
WATER QUALITY PROTECTION AUTHORITY	5
DESCRIPTION OF THE INDUSTRY	6
Mineral Mining	6
Processing Operations	6
Mine Dewatering	6
Concrete Batch Plants	6
Hot Mix Asphalt Plants	7
Stormwater	8
WASTEWATER CHARACTERIZATION	8
Discharge Characteristics	8
Selection of Pollutant Parameters	11
SEPA COMPLIANCE	13
TECHNOLOGY-BASED EFFLUENT LIMITATIONS	13
Common Limitations on pH	13
Process Wastewater and Mine Dewatering Limitations on TSS	14
Storm Water Discharge Conditions	15
Non-Water Quality Environmental Impacts	15
SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS	16
Surface Water Quality Standards	16
Process Wastewater and Mine Dewatering Limitations	16
Storm Water Discharge Limitations	18
Whole Effluent Toxicity Testing	18
Sediment Quality	19
GROUND WATER QUALITY BASED EFFLUENT LIMITATIONS	19
MONITORING AND REPORTING	20
STORM WATER POLLUTION PREVENTION PLAN	21
SOLID AND LIQUID WASTE DISPOSAL	22
SCHEDULE OF COMPLIANCE	23
GENERAL CONDITIONS	23
PERMIT MODIFICATIONS	23

RECOMMENDATION FOR PERMIT ISSUANCE	24
SMALL BUSINESS ECONOMIC IMPACT STATEMENT (SBEIS)	24
BMP REFERENCES	24
GENERAL REFERENCES	25
APPENDIX A: PUBLIC COMMENT AND INFORMATION	26
APPENDIX B: HOW AND WHEN TO APPLY FOR COVERAGE UNDER THE PERMIT ..	27
APPENDIX C	29

PERMIT COVERAGE

Process water and storm water associated with certain types of mining operations, concrete and asphalt production, and ancillary facilities are the focus of this general permit. These operations or facilities may require coverage under this general permit for discharges to surface water or discharges to ground water. Specific operations designated by Standard Industrial Classification (SIC) codes eligible for coverage in this general permit are:

0811 Timber Tracts
1411 Dimension Stone
1422 Crushed and Broken Limestone
1423 Crushed and Broken Granite
1429 Crushed and Broken Stone, Not Elsewhere Classified
1442 Construction Sand and Gravel
1446 Industrial Sand
1455 Kaolin and Ball Clay
1459 Clay, Ceramic, and Refractory Minerals, Not Otherwise Classified
1499 Miscellaneous Nonmetallic Minerals, Except Fuels
2411 Logging
2951 Asphalt Paving Mixtures and Blocks
3273 Ready-Mixed Concrete

The types of facilities included are sand and gravel mines, rock quarries, clay mines, silica mines, diatomite mines, olivine mines, dolomite mines, silvicultural point sources, hot mix asphalt plants, and concrete batch plants. Some facilities may require coverage for storm water only.

The mining and processing facilities covered by the permit are grouped together due to common potential adverse impacts to ground water or surface water quality and common methods of prevention and control of pollutant discharges.

The criteria for coverage are explained in more detail in Special Condition S3. of the permit. All facilities identified by the SIC Codes listed above and which meet the criteria of Special Condition S3 must apply for and be covered by the general permit, even if the only discharge is storm water.

Certain facilities may require coverage under an individual permit because of specific conditions beyond the scope of this general permit. Facilities that have one or more of the following characteristics may require individual permit coverage:

1. Any facility that has a pit design that will intercept more than one aquifer;
2. Any facility that conducts mining operations below the ordinary high water mark in a river or stream channel;
3. Any facility not covered by a DNR reclamation plan that uses materials that are not inert for reclamation or backfill;

4. Any facility that would impair adjacent water rights as a result of pit dewatering;

Facilities described by any of the above conditions are still required to obtain a wastewater discharge permit. The operator of any such facility should contact the department in order to fulfill its legal obligation to secure a wastewater discharge permit.

Information regarding the application for coverage under the general permit including timing of coverage is presented in the permit general conditions G20., G23., G24., G25., and G26. These general conditions are derived from WAC 173-226-200.

WATER QUALITY PROTECTION AUTHORITY

The Federal Water Pollution Control Act requires that a discharge of wastewater to waters of the United States be authorized by a NPDES wastewater discharge permit. The Environmental Protection Agency (EPA) regulations allow state agencies that have been delegated NPDES permit authority to issue individual permits or general permits to regulate wastewater discharges. The department, as a delegated NPDES state agency, is responsible for implementing the EPA requirements for NPDES permits in Washington State.

The State Water Pollution Control Act (Chapter 90.48 RCW) requires that any party that conducts a commercial or industrial operation of any type that results in the disposal of liquid or solid waste material into waters of the state shall obtain a permit (RCW 90.48.160). Waters of the state are defined to include both surface water and ground water (RCW 90.48.020). This general permit is issued under both authorities. In this way, the department will regulate discharges to both surface water and ground water. The EPA administers the NPDES (wastewater discharges to surface water permits) program on federal and tribal lands in the state of Washington. The state retains the right to require wastewater discharge permits for discharges to state ground waters originating from federal or tribal lands.

All waste discharge permits, whether issued pursuant to NPDES or state Waste Discharge Permit regulations, must be conditioned in such a manner that all authorized discharges meet State water quality standards. The State has adopted ground water quality standards (Chapter 173-200 WAC) and surface water quality standards (Chapter 173-201A WAC). These state standards declare that beneficial uses of the State's waters shall be protected. This protection shall be accomplished and maintained by limiting the discharge of wastes or other contaminating material and substances into the State's ground water and surface water.

Both federal and state water pollution control law require that wastewater discharges including storm water discharges associated with industrial activity (Type 3 storm water in this permit) be limited by the more stringent of technology-based or water quality-based effluent limitations. Federal technology-based limitations are called Best Practicable Control Technology Currently Available (BPT) and Best Conventional Control Treatment (BCT) for conventional pollutants and Best Available Treatment economically achievable (BAT) for toxic and nonconventional pollutants. In cases where no effluent guidelines exist or the guidelines do not adequately regulate the facility, Best Professional Judgement (BPJ) is applied to establish limits and conditions. The State Water Pollution Control Act requires application of "all known, available, and reasonable methods of prevention, control, and treatment (AKART)" for discharges to waters of the state.

DESCRIPTION OF THE INDUSTRY

Mineral Mining

According to the Washington Division of Geology and Earth Resources Information Circular 87, in 1991 there were approximately 1,750 mines, quarries, and borrow pits in the state. Of these, approximately 900 were permitted by the Department of Natural Resources (DNR). There were an estimated 350 state or local government-operated mines that did not have active mining permits, 200 mines less than 3 acres in size, and 300 mines on federal lands. DNR issued permits to 637 sand and gravel mines, 196 rock quarries, 14 clay mines, seven silica mines, five diatomaceous earth (diatomite) mines, one olivine mine, and 19 dolomite, limestone, or marble mines.

DNR permits for mining are issued to facilities where surface disturbances are greater than 3 acres (Chapter 78.44 RCW). The coverage of this general permit is not restricted on the basis of disturbed acreage. The intent of this general permit is to require effective and enforceable water quality management practices. Potential adverse water quality impacts from these operations are independent of the size of the facility. Thus, this general permit does not set an exclusion based on disturbed acreage.

Processing Operations

Some use of water is necessary at most mining-related facilities. Typical water uses are related to the mining, processing, handling, or transporting the mined material. Water of these origins is categorized as process water. Typical uses of process water at a mining facility generally depend on the diversity of operations at the facility including dust control and washing or screening mined rock products.

In addition to these easily identified sources of wastewater, many other activities at a mining facility can impact ground water and surface water quality and will be considered in this general permit. These activities include wastewater from concrete truck or asphalt truck cleanup, equipment maintenance, and spills or leaks from tanks and equipment. Facilities at which many activities take place, from mining through batch plant operations, generate the greatest volume of wastewater and have the most varied sources of potential water contamination.

Mine Dewatering

Mine dewatering water is a type of wastewater generated at some mining facilities which is not a direct result of using water to accomplish a processing function. This water is incidental to the mining operation and includes water that seeps into the mine or accumulates due to precipitation into the mine. Suspended solids may be the only contaminant requiring treatment in these circumstances. Water entering the mine site and subsequently becoming commingled with process water becomes process water and is subject to process water requirements.

Concrete Batch Plants

Concrete batch plant operations (both stationary and portable) are commonly associated with sand and gravel mining. The batching or mixing process is controlled by an operator from a central

control room. Solid components are metered by weight and added to a truck from overhead silos. Water and chemical admixtures are metered by volume. Truck capacities typically range from 5-12 cubic meters.

After loading, the truck moves to a wash area where an overhead spray or a hose is used to wash down the truck exterior. The truck then delivers the load to the job site. Between loads or at the end of the day, returned concrete is discharged from the truck. The truck drum must be washed out to avoid setting of concrete in the drum. Water is added to the drum, the drum is rotated and discharged to a wash water collection basin. Settled process water is often used for drum washout.

The truck washout area is typically a pond that allows the wastewater to infiltrate without treatment to the ground water or to discharge to surface water. Untreated process water resulting from concrete batch operations has a high pH, typically in the range of 11 to 12. Some admixtures commonly used in the concrete consist of organic based compounds that can result in high Biochemical Oxygen Demand (BOD) or high nitrate concentrations in discharge water. Improper discharge of this collected process water can pose multiple adverse impacts to both ground water and surface water.

Treatment technologies often employed by concrete batch plants to reduce Total Suspended Solids (TSS) in washwater involves the use of lined settling basins, evaporation ponds, drag chain washers, sloped slab separation basins, filter ponds, and clarifiers (commonly in conjunction with flocculation) for the removal of suspended solids. Additives for pH adjustment are also used. Total recycling of washwater from lined settling ponds is an alternative to treatment, monitoring, and discharge of high pH wastewater.

Hot Mix Asphalt Plants

The manufacture of asphalt concrete paving mixtures by hot mix asphalt plants (portable plants and central mix plants) are associated with sand and gravel mining. Sand and gravel are heated and dried in a rotary drier and then placed in a mixing hopper and mixed with hot asphalt cement. The asphalt concrete is then usually dumped into a truck for transport to the job site.

The particulate emissions from this process are controlled by air pollution control equipment. Cyclones, venturi scrubbers or fabric filters collect dust from the drier. Water is commonly used as a dust capture agent in these systems. Using water sprays to remove the air pollutants causes transfer to the resulting wastewater. The amount of water needed in a wet collection system may range from 50 to 200 gpm. The wastewater is directed to an open pit or tank where the particulate matter settles out and the water can be reused in the scrubber.

Delivery truck washout may be performed with another petroleum product such as diesel fuel or other type of release agent at the site. Associated equipment in the manufacturing and delivery process adds to the potential for contamination of waters.

Treatment technologies available to hot mix asphalt plants include the use of lined settling ponds for suspended solids removal and skimming of the pond surfaces or the use of oil/water separators for the removal of oil before recycling of water.

Stormwater

In some areas of the state, storm water is a significant source of water at a facility. Implementation of BMPs for storm water management will be an important part of this general permit. The most important BMP that relates to storm water is minimization of the amount of storm water which contacts products and raw materials or flows or falls into an area of active processing or process water storage.

Storm water falling on a site may become polluted by dissolving or eroding material it contacts. Three types of storm water have been defined for this general permit. Segregation of storm water types is essential in minimizing treatment requirements. Two types of storm water require no treatment while another type may require treatment. BMPs directly or indirectly apply to all three types.

Storm water falling on undisturbed, natural areas, or completely reclaimed areas should remain clean and require no treatment. So long as this storm water reaches waters of the state without contacting any machinery, product or raw material piles or other water which has contacted such material, the storm water is not considered to be associated with industrial activity. This type of storm water is classified as Type 1 storm water for this general permit.

Storm water on a portion of a site that has been disturbed, as for example land cleared in preparation for mining or other industrial activity, is classified as Type 2 storm water until industrial activity such as mining, processing or manufacturing occurs. BMPs addressing erosion and sediment control are required in the permit.

Storm water falling on the part of a site where manufacturing, processing, active storage, or mining takes place is classified as Type 3 storm water. Type 3 storm water is virtually the same as the federally defined "storm water associated with industrial activity." This type of storm water has the greatest potential to become contaminated prior to discharge to waters of the state. BMPs to prevent contamination of storm water by industrial pollutants are required in the permit.

WASTEWATER CHARACTERIZATION

Discharge Characteristics

The wastewater discharges from the facilities covered under this general permit are almost always intermittent or batch discharges. The size of facility covered will range from facilities discharging only as a result of precipitation to large integrated sand and gravel mines with associated manufacture of concrete discharging batchwise on a daily basis. There is a high variation of wastewater generation from site to site. The total quantity of effluent discharged is substantially reduced when settled water is reused for processing and washing.

As described in later sections, potential adverse water quality impacts can be caused by processes or conditions that result from a facility discharging water containing or characterized by some combination of the following: elevated pH; excessive suspended solids; elevated dissolved solids; petroleum products; elevated biochemical oxygen demand (BOD); or elevated nitrate concentration.

The table below summarizes pollutants that may be present in the water discharged from various on-site sources:

Contaminant	Source
Hydrocarbons (oil and grease, hydraulic fluid, and fuels)	Spills or leaks from equipment and storage tanks Maintenance shop Hot mix asphalt plant wet scrubber Delivery truck and equipment washing
Nitrate	Blasting residues Concrete admixtures
Turbidity Suspended solids Dissolved solids	Processing wastes Seepage from working face Storm water runoff and runoff from disturbed areas Washing, screening, or crushing rock Stripping and digging operations Runoff from overburden, waste piles, and stockpiles Dust suppression Wet scrubber wastes Vehicle washing and cleanout
Alkalinity (high pH)	Concrete truck wash water Concrete batch plant water
Chlorides	Concrete admixtures
Sulfates	Concrete admixtures
Ligninsulfonate	Dust suppression

Through recognition of the types of wastewater at a site, specific treatment technologies and BMPs can be implemented that segregate process water from storm water and relatively clean mine dewatering water and thereby reduce the volume of water that requires treatment before discharge.

The proposed wastewater discharge is characterized for the following regulated parameters:

Some Measured Concentrations of Various Pollutants
in Concrete Washwater (mg/l except where noted)

parameter	number of analyses	low value	high value	mean or average
pH, units	8	7.2	12.5	N/A
nitrate	6	0.3	24	6.8
chloride	3	15	96	55
sulfate	1	333	333	N/A
total dissolved solids	4	103	3600	N/A
BOD	7	1	30	N/A
chemical oxygen demand	4	<6.8	188	86
total organic carbon	4	16	54	32
total phosphorous	2	0.01	0.29	0.15
oil & grease	6	<1	33	N/A
total iron	2	0.23	0.92	0.58
total suspended solids	2	1	45	N/A
alkalinity	3	57	2180	1056

Discharge Monitoring Report (DMR) Data from
Two Operations, Washington State
(1987-1993)

AAA Monroe Rock, Monroe

AAA Monroe Rock is a current permit holder. The operation consists of mining, quarrying, and crushing rock on an active area of approximately 63 acres, discharging primarily Type 3 storm water. The storm water is treated by settling in a series of ponds.

The 21 data values are lognormally distributed. For TSS the following statistics were calculated:

mean = 25 mg/l
standard deviation = 2.1

Central Pre-Mix, Yakima

Central Pre-Mix is another permit holder. The operation consists of mining, crushing, and classifying sand and gravel, and manufacturing of concrete. The mine contains some clay layers. The wastewater discharge consists of treated storm water, mine dewater, and gravel wash water. Settling basins in series provide treatment.

The 41 data values are lognormally distributed. For TSS the following statistics were calculated:

mean = 10 mg/l
standard deviation = 2.6

Selection of Pollutant Parameters

The pollutants selected as the major pollutant parameters in mineral mining wastewaters according to the "Development Document for Mineral Mining" are total suspended solids, dissolved solids, sulfide, iron, zinc, fluoride, and pH. Additional pollutants selected as major pollutant parameters for the concrete and hot mix asphalt batch plant operations are turbidity, oil & grease, total petroleum hydrocarbons, alkalinity, chlorides, and sulfates.

Total Suspended Solids include organic and inorganic materials present in wastewater from sand, cement, and fines as a result of water used to sort and wash materials. Inorganic solid materials are commonly present in the wastewaters from facilities covered under this general permit. These materials include sand, silt, and clay. These solids may settle out rapidly or be suspended in water for a time. While in suspension, TSS increases the turbidity of the water, reduces light penetration and impairs the photosynthetic activity of aquatic plants, thereby contributing to oxygen depletion.

TSS can kill fish and shellfish through abrasive injury or clogging of gills and respiratory passages. Excessive TSS can destroy aquatic habitats by coating the bottom with sediment.

Turbidity of water is related to the amount of suspended and colloidal matter contained in the water. It reduces the clarity and penetration of light. Turbidity is an indirect measure of total suspended solids.

Total Dissolved Solids (TDS) are a gross measure of the amount of soluble pollutants in the waste water. It is a parameter of concern in drinking water supplies and water used for irrigation. Though TDS can reach undesirable concentrations in recycled wash waters, the mining activities generally associated with high TDS waters (rock salt, brine, and trona operations) are not covered under this general permit. Due to the potential impact on drinking water supplies in the vicinity of some types of mining or processing operations employing recycle and storage of wastewater in an unlined pond or pit, monitoring for TDS will be required. The ground water quality standard for TDS is a maximum of 500 mg/l. Treatment methods to remove TDS are prohibitively expensive for this category of dischargers.

Sulfides may be present in significant amounts in the wastewater from the manufacture of rock salt and sulfur facilities, two categories not covered by this general permit.

Iron and zinc can be lethal to fish and other organisms in high concentrations. Iron and zinc in drinking water are regulated primarily to avoid unpleasant tastes.

Fluoride is found in wastewaters from fluorspar, feldspar, and industrial sand facilities employing acid wash techniques. These types of facilities will not be covered under this general permit.

pH extremes are toxic to fish and unsuitable for ground water used as a drinking water source. High pH wastewater is common in concrete batch plants (SIC Code 3273, Ready-Mixed Concrete) due to the soluble cement constituents in washwater. Values up to 12.5 pH units are reported in the literature. Muriatic (hydrochloric) acid is occasionally used in cleaning operations. Oil and grease includes thousands of organic compounds with varying physical and chemical properties. Oil and grease exhibit an oxygen demand. Oil may adhere to fish gills or coat and destroy algae or other plankton. Oil will also taint the flesh of fish and shellfish. Some types of oils have been found to be toxic to aquatic organisms at concentrations as low as 0.1 mg/l. Total Petroleum Hydrocarbons (TPH) are often considered a subset of oil and grease. TPH measurements exclude that portion of oil and grease which consists of animal and plant oils and fats. Petroleum derived fuels and oils, the more toxic constituents, are measured by the TPH test. The TPH test also quantifies the lighter types of fuels, such as gasoline and diesel fuel, which escape detection in the usual oil and grease test.

Alkalinity is the sum total of components in the water that tend to elevate the pH of the water above a value of about 4.5. Examples of materials that increase the alkalinity are carbonates, bicarbonates, phosphates, and hydroxides. Excessive alkalinity in water supplies is undesirable due to the shift in availability of certain metal ions.

Chlorides are regulated due to the effect excessive chlorides have on the taste of drinking water. The ground water standard is set at 250 mg/l.

Sulfates are regulated due to the laxative effect they have when present in high concentrations in drinking water. The ground water standard is 250 mg/l.

SEPA COMPLIANCE

The coverage of existing facilities under this general permit is exempt from the procedures mandated under the State Environmental Policy Act (WAC 197-11-855). The exemption does not apply to any new source dischargers. A new source discharger is any facility not previously in operation before the effective date of the availability of this general permit. A new source discharger must complete the SEPA process prior to application for coverage under the general permit.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

The first consideration for limitations and permit conditions is to determine what available pollution-prevention technology is reasonable to require of the discharger. The goal is to require each discharger to do what is economically reasonable to reduce the flow of pollutants to surface and ground waters of the state. This consideration of AKART is required in all wastewater discharge permits issued in the state of Washington (RCW 90.48.010). The federal government has a similar requirement under the authority of the Federal Water Pollution Control Act (CWA).

The federal government evaluated many categories of dischargers as a result of the directives of the CWA. Section 301(b) requires the achievement of effluent limitations for point sources which are based on the application of the best practicable control technology currently available (BPT) and the best available demonstrated control technology (BCT) which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants. The results of the evaluations for the categories covered by this general permit were published by USEPA as "Final Development Document for Effluent Limitations Guidelines and Standards for the Mineral Mining and Processing Industry" (July, 1979), "Guidance Development Document Effluent Limitations Guidelines and New Source Performance Standards for Concrete Products Point Source Category" (February, 1978), "Development Document for Proposed Effluent Guidelines and New Source Performance Standards for the Paving and Roofing Materials (Tar and Asphalt)" (September, 1974), and a related category "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Cement Manufacturing Point Source Category" (August, 1973). The information contained in these documents, the federal requirements for the Mineral Mining Category and the Asphalt Concrete Subcategory, Suspended Solids Removal in the Crushed Stone Industry (August, 1982), and analyses of the data submitted on recent DMRs from individually permitted facilities form the basis for the technology-based effluent limits of this general permit. The state requirement of AKART is the reason for the permit limitations on TSS in process water and quarry water. EPA BPT limitations are imposed on pH in process and dewatering discharges.

Common Limitations on pH

The limitation on the pH of discharges is derived from the federal effluent guidelines (40 CFR Part 436., Mineral Mining and Processing Point Source Category). All subcategories who may discharge must do so within the range of 6 to 9 pH units. This general permit applies the same limit to discharges from concrete batch plants. The costs and benefits of pH adjustment are presented in the

"Development Document for Concrete Products." Discharges in violation of this limit would likely result in violations of water quality standards, prohibited by this permit and state regulation (WAC 173-201A). The limitation represents BPT for dischargers covered under this general permit.

Process Wastewater and Mine Dewatering Limitations on TSS

The limitation on discharges of TSS is derived from the requirement to recycle wastewater from the federal effluent guidelines 40 CFR Part 436, Mineral Mining and Processing Point Source Category, 40 CFR Part 443, Subpart B, Paving and Roofing Materials Point Source Category, Asphalt Concrete Subcategory, discharge data records, and the report Suspended Solids Removal in the Crushed Stone Industry.

The BPT requirement to recycle wastewater necessitates a system to direct wastewater to a common area in order to prepare the water for reuse. The water must be treated to remove the solids which would otherwise clog piping, damage pumping equipment, and contaminate the product.

The EPA report Suspended Solids Removal in the Crushed Stone Industry was examined to ascertain the degree of effluent reduction capability within the industry. The pollution control technology examined was settling and recycle or reuse. The report summarized a variety of conditions and waste streams and the attainable TSS limit for each. The nonrain categories are appropriate for consideration of the process wastewater since the general permit requires that storm water should be segregated from process water unless the facility can treat storm water to the process wastewater limits. The level of effluent quality attainable for non-rainfall conditions, including all facilities and all wastewater streams (excluding storm water) is reported as a monthly average TSS of 38 mg/l and a maximum daily TSS of 80 mg/l. The limit proposed for most categories of this general permit is 40 mg/l average monthly TSS and 80 mg/l maximum daily TSS.

The limits recommended in that report are based on a survey of a representative group of facilities. Federal BPT limitations are usually drawn from a survey of exemplary facilities within a category. The recommended limits are therefore less stringent than they might have been had EPA looked only at exemplary facilities.

The TSS encountered in the process water has a rapid settling rate. TSS removal efficiencies range from 90% with very dilute waste streams to over 99% for the typical process waste streams. Despite the relatively high TSS loadings, the material settles easily, and the limits of 40/80 mg/l TSS will be satisfied so long as adequate settling time and proper design and operation are maintained.

Facilities that cannot meet the TSS limit at this time have two options. One is to continue to be covered under the permit and apply for an individual permit. Another option is to continue to be covered under the permit and participate in one of the SIC code-specific analyses of economically achievable treatment and control systems.

The DMR data summary presented in the Discharge Characterization Section indicates that the industry is capable of managing its resources and discharges within the general permit effluent limits. The two facilities in Washington that were examined discharge an effluent which on the average, is 10 to 25 mg/l TSS.

Monthly average limits and daily maximum limits are constructed that alert the facility and the department to instances where pollution prevention has failed. This general permit specifies limits that appear to be higher than the demonstrated performance of these two facilities. The limits recognize that occasional excursions in excess of the average can occur. The department, consistent with federal policy and regulation, has chosen to specify limits that define the limit of performance that can reliably be achieved.

Hot mix asphalt plants and facilities covered under the industrial sand category must meet more stringent effluent guidelines established as BPT and BAT by the federal government. Industrial sand facilities, in accordance with 40 CFR Part 436, Subpart D, must recycle at least a portion of the wastewater and not exceed the following limitations for discharge of process water and mine dewatering: 45 mg/l TSS daily maximum and 25 mg/l TSS for a monthly average.

Asphalt Concrete facilities, in accordance with 40 CFR Part 443, Subpart B, must not discharge any process wastewater pollutants to surface waters of the state.

Storm Water Discharge Conditions

The TSS in storm water from these facilities will be controlled by BMPs. As with all wastewater discharges, the technology-based requirements and water quality-based requirements must be satisfied. The BMPs such as detention and housekeeping are based on the federal determination that such BMPs constitute BAT/BCT for storm water at this time (FR 40974, August 16, 1991).

If permittees are unable to separate storm water from process water, such commingled water will be considered process water. This general permit requires permittees to identify and control pollution sources that may affect storm water by development and implementation of a Storm Water Pollution Prevention Plan. The pollutant control, inspections, and standard provisions of this general permit include specific requirements, as well as references to technical guidance. Each discharger will be able to select BMPs best suited for reducing the pollutants in its storm water on the basis of site-specific conditions.

Non-Water Quality Environmental Impacts

The effects of these treatment and control technologies on air pollution and noise pollution are usually small and not of any significance. Noise generated by water pumping equipment is insignificant when compared to the noise generated by the mining, sorting, and manufacturing processes.

Large amounts of solid waste are formed as a result of suspended solids removal from recycling wastewaters. These silts and soils should be of a nonhazardous nature and simple or even profitable to dispose of in some cases. Mineral mining properties are often large and space for land disposal is readily available. Inert materials may be used for backfill at mines. Since these industries have sufficient space and earth moving capabilities, they manage it with greater ease than most other industries.

Sludges that form in settling devices used for pH control should be periodically analyzed for proper designation prior to disposal. In most cases, careful separation of wastewaters requiring

neutralization from wastewaters containing inert suspended solids will preclude large accumulation of problem sludges.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS

Surface Water Quality Standards

Each wastewater discharge permit issued must incorporate any requirements necessary to control pollutant parameters which have the reasonable potential to cause or contribute to an excursion above any state water quality standard [40 CFR 122.44(d)]. The discharges from the types of facilities covered under this general permit have historically caused violations of the state standard for turbidity, caused by the suspended solids in the discharge.

The majority of surface water discharges resulting from operations at the facilities covered under this general permit are to Class AA and Class A waters of the state. The water quality standard for turbidity (173-201A-030 WAC) for these classes of water is "Turbidity shall not exceed 5 NTU over background turbidity when the background turbidity is 50 NTU or less, or have more than a 10% increase in turbidity when the background turbidity is more than 50 NTU."

Process Wastewater and Mine Dewatering Limitations

The turbidity of process wastewater discharging in compliance with the TSS limits in this permit may result in water quality violations. The strict relationship between TSS, settleable solids and turbidity is not firmly established for this category and may be site-specific. An additional condition of this general permit is a limit on turbidity in the process wastewater. The limit is based on the water quality standard and the use of a mixing or dilution zone.

The mixing zone authorized in this general permit for the purpose of meeting the water quality standard for turbidity is established as a ratio of one part process wastewater discharge to nine parts surface water. In most cases, whether dilution occurs in a regional storm drain system or in a river or other water body, the turbidity mixing plume will not cause a negative impact in receiving water body. The majority of storm water discharges under this general permit are to Class AA and A waterbodies. A near zero turbidity for the mixing surface waters is assumed in the calculation for a water quality-based turbidity limit. Therefore a limit of 50 NTUs will be applied as a water-quality based limit.

$$[0.1(50 \text{ NTUs}) + 0.9(0 \text{ NTUs}) = 5 \text{ NTUs}].$$

It is not possible to specify the absolute size of each mixing zone for facilities covered under this general permit. The maximum size of the mixing zone granted under this general permit must be consistent with the size and volume constraints of WAC 173-201A-100:

1. A discharger shall be required to fully apply AKART prior to being authorized a mixing zone.
2. Mixing zone determinations shall consider critical discharge conditions.

3. No mixing zone shall be granted unless the supporting information clearly indicates the mixing zone would not have a reasonable potential to cause a loss of sensitive or important habitat, substantially interfere with the existing or characteristic uses of the water body, result in damage to the ecosystem, or adversely affect public health as determined by the department.
4. Water quality criteria shall not be violated outside of the boundary of a mixing zone as a result of the discharge for which the mixing zone was authorized.
5. The size of a mixing zone and the concentrations of pollutants present shall be minimized.
6. The maximum size of a mixing zone shall comply with the following:
 - (a) In rivers and streams, mixing zones, singularly or in combination with other mixing zones, shall comply with the most restrictive combination of the following (this size limitation may be applied to estuaries having flow characteristics that resemble rivers):
 - (i) Not extend in a downstream direction for a distance from the discharge port(s) greater than three hundred feet plus the depth of water over the discharge port(s), or extend upstream for a distance of over one hundred feet; (ii) Not utilize greater than twenty-five percent of the flow; and (iii) Not occupy greater than twenty-five percent of the width of the waterbody.
 - (b) In estuaries, mixing zones, singularly or in combination with other mixing zones, shall:
 - (i) Not extend in any horizontal direction from the discharge port(s) for a distance greater than two hundred feet plus the depth of water over the discharge port(s) as measured during mean lower low water; and (ii) Not occupy greater than twenty-five percent of the width of the waterbody as measured during mean lower low water.
 - (c) In lakes, and in reservoirs having a mean detention time greater than fifteen days, mixing zones, singularly or in combination with other mixing zones, shall comply with the most restrictive combination of the following:
 - (i) Not exceed ten percent of the water body volume; (ii) Not exceed ten percent of the water body surface area (maximum radial extent of the plume regardless of whether it reaches the surface); and (iii) Not extend beyond fifteen percent of the width of the waterbody.

Some dischargers initially covered by this general permit may need more restrictive turbidity-based permit limits for process water discharge to surface waters. Site-specific mixing or dilution zones for process water discharges may be established in the future for some dischargers initially covered under this general permit. Facilities causing turbidity violations in the receiving water will be required to apply for an individual permit and prepare an engineering report.

Storm Water Discharge Limitations

The discharge of storm water from a facility covered under this general permit is controlled by the AKART/BCT requirement to implement the BMPs for storm water. The BMPs, structural and nonstructural, should reduce the concentration of solids carried in the storm water associated with the industrial activity. Since the storm water discharge would then satisfy the technology-based requirement, a mixing or dilution zone may be authorized in accordance with WAC 173-201A-100.

The mixing zone authorized in this general permit for the purpose of meeting the water quality standard for turbidity is established as a ratio of one part storm water discharge to nine parts surface water. In most cases, whether dilution occurs in a regional storm drain system or in a river or other water body, the turbidity mixing plume will not cause a negative impact in receiving water body. The majority of storm water discharges under this general permit are to Class AA and A waterbodies. A zero turbidity for the mixing surface waters is assumed in the calculation for a water quality-based turbidity limit. Therefore a limit of 50 NTUs will be applied as a water-quality based limit.

$$[0.1(50 \text{ NTUs}) + 0.9(0 \text{ NTUs}) = 5 \text{ NTUs}].$$

The mixing zone for storm water discharges will be sized consistent with WAC 173-201-100 as explained in the section above for the process water mixing zone.

A discharge of storm water in excess of 50 NTUs may not be considered a violation if the permittee prepares an engineering report that demonstrates to the satisfaction of the department that the discharge did not cause a violation of the turbidity standard due to the naturally present background turbidity in the receiving water.

Storm water discharges resulting from a rainfall event in excess of the 10 year-24 hour storm are not subject to this limit if the detention facility is designed and functions to contain the 10 year-24 hour storm event. This is consistent with federal regulations for this class of discharger.

Whole Effluent Toxicity Testing

Unidentified sources of toxicity are not expected to be present in the effluent from this discharge. No whole effluent toxicity testing is required in this permit. Site-specific monitoring for toxicity may be required under a separate administrative order. Some jurisdictions require toxicity testing of wastewater discharges from concrete manufacturers.

Sediment Quality

The department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the department may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400).

The department has determined through a review of the discharger characteristics and effluent characteristics that the average discharge meeting the limits of the general permit has no potential for the discharge of substances that may cause a violation of the sediment management standards. Site-specific actions may be required under a separate administrative order.

GROUND WATER QUALITY BASED EFFLUENT LIMITATIONS

The department has promulgated Ground Water Quality Standards (Chapter 173-200 WAC) to protect beneficial uses of ground water. Permits issued by the department shall be conditioned in such a manner so as not to allow violations of those standards (WAC 173-200-100).

The ground water antidegradation policy of the state of Washington is generally guided by chapter 90.48 RCW, the Water Pollution Control Act, and chapter 90.54 RCW, the Water Resources Act of 1971. The goal of this policy is to ensure the purity of the state's ground waters and to protect the natural environment. The antidegradation policy states that existing and future beneficial uses shall be maintained and protected and degradation of ground water quality that would interfere with or become injurious to beneficial uses shall not be allowed (WAC 173-200-030).

The characteristics that make sand and gravel resources valuable, also makes them productive aquifer systems. Over three-quarters of the population of the state depends on ground water as its principal source of drinking water. The high quality ground water associated with unconsolidated glacial deposits near the surface are as valuable as is the gravel that comprise them. The use of an infiltration basin, dry well, drainfield, unlined settling lagoon, or similar means of disposal is likely to adversely affect ground water when pollution prevention measures are not practiced.

The Ecology Storm Water Manual, the Spokane County Guidelines for Storm Water Management, and other publications listed in the References section at the end of this fact sheet include guidance on the appropriateness of certain BMPs for discharging process water or storm water to the ground. Other BMPs may be equally useful and acceptable. USEPA technical guidance documents are also listed in the References section.

Discharges to the ground via dry wells, drainfields, or other subsurface means are subject to the requirements of the Underground Injection Control (UIC) Program (Chapter 173-218 WAC). Certain pollutants must not be discharged; these are covered by the provisions of the UIC regulations.

The majority of dischargers do not need nitrate (NO_3) limits. Blasting will not occur at the majority of facilities. Monitoring for nitrates is required at facilities that employ blasting and at concrete

batch plants due to the presence of nitrates in cement admixtures. The ground water quality criterion for nitrates is 10 mg/l.

Two categories of operations covered under this general permit have a demonstrated potential to adversely impact ground water and therefore require special consideration for water quality-based permit conditions.

Concrete Batch Plants (SIC Code 3273) can negatively impact ground water when high pH truck washwater containing cleaning agents, admixtures, and dissolved solids are allowed to flow untreated into potential and current drinking water aquifers. Sedimentation basins or other treatment devices are required to be lined so as to preclude entry of process wastewater into ground water.

Hot mix asphalt plants (SIC Code 2951) can cause impairment of ground water quality when cleaning solvents and wet-scrubber wastewaters are allowed to infiltrate untreated into potential and actual drinking water aquifers. These ponds also have the potential to spill and to pollute adjacent surface water. Trucks are cleaned out on-site using solvents or diesel fuel as release agents. This washwater collects at the surface and percolates into the ground water or mixes with other process water or storm water. Sedimentation basins or other treatment devices are required to be lined so as to preclude entry of process wastewater into ground water.

MONITORING AND REPORTING

Effluent monitoring, recording, and reporting are required (WAC 173-226-090) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved. Monitoring may also be required to determine the effectiveness of source control measures such as BMPs and to determine if further effluent limits are necessary (CWA Section 308 and 90.48.260 RCW).

The monitoring and testing schedule is detailed in the permit under Condition S.2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

The philosophy and intent of general permits do not contemplate the department's approval of monitoring plans on a site-by-site basis. For this general permit, the monitoring plan for each facility will be based on the activities at the site, generating sources of process water and contaminants, and the method of discharge. The fate of the discharge may be to surface water, to a publicly owned storm drain system which can ultimately discharge to surface water or to ground water, or indirectly to ground water through land application. A combination of these will complicate the monitoring requirements for a discharger. Careful consideration of S1. and S2. in conjunction with fact sheet Appendix C will enable the operator of the facility to determine the appropriate monitoring plan.

Appendix C of this fact sheet summarizes the parameters and sampling location(s) for monitoring process water and storm water from Special Condition S3. For example, a facility that mines and classifies gravel for off-site use will be required to monitor monthly for Turbidity, pH, and TSS in its process and mine dewater wastewater discharge to surface waters or to a storm drain that discharges to surface water. If the facility discharges this wastewater to ground water (or to land or

ground), only pH must be monitored monthly. For this example, the facility will be required to monitor TPH monthly, beginning three years after the permit is issued. Any facility that uses blasting in its operations would add nitrate to the list of parameters requiring monthly monitoring. If storm water on the site is collected separately from process water, the SWPPP requires that the storm water be tested once per year for the process water parameters and certified to be free from those contaminants. Storm water that is commingled with process water must be considered process water.

PROCESS WATER MANAGEMENT

The permit requirements under S5. are based on good engineering practices and water quality concerns. Lined impoundments should be constructed so that the useful purpose of preventing contamination of ground water is maintained. The impoundments and other devices to control pollutants should be built to contain the statistically derived storm water event with a probable reoccurrence interval of once in ten years. This is consistent with federal regulations regarding these industries.

Direct discharge of wastewater from a hot mix asphalt plant or a concrete batch plant into an aquifer is prohibited in order to protect drinking water supplies.

Pollution prevention in the form of containment of potential pollutants and prohibitions on maintenance shop discharges is required.

The use of ligninsulfonate is restricted due to the high BOD of the material and the potential for polluting ground water or surface water from road runoff. Otherwise, a BOD limitation and monitoring would be required to restrict its pollution potential in surface water and ground water.

STORM WATER POLLUTION PREVENTION PLAN

A Storm Water Pollution Prevention Plan (SWPPP) shall be developed by all facilities and retained on-site for inspection by the department.

Developing and implementing the SWPPP constitutes the initial phase of the identification and control of storm water pollution by industrial activities. The objectives include: elimination of commingling of process water and storm water, implementation of BMPs, and the prevention of the violation of water quality standards.

Certification, through testing, that the storm water discharges were investigated for potential commingling with process water or water originating within a processing area will be a requirement of this general permit.

The department is including reference to several sources of BMPs in this general permit. The SWPPP shall identify appropriate BMPs and a discussion of how and when the BMPs will be implemented.

The SWPPP should also include other source control and treatment BMPs necessary to comply with the requirements of this general permit or state water quality standards. Where BMPs listed in

available references are not adequate, the operator may design innovative BMPs that achieve compliance with this general permit.

The SWPPP and all test results must be retained on-site and available for inspection and review by the department.

At many facilities, even with proper water management, excessive turbidity will be the major contaminant in discharge water. This general permit will require the development, on-site retention, and implementation of a specific plan for erosion and sediment control.

All facilities are required to include an implementation schedule in the SWPPP Erosion and Sediment Control Plan (SWPPP/ESC). This schedule will include target completion dates for any BMPs listed in the SWPPP/ESC so that implementation progress may be assessed. The SWPPP/ESC implementation schedule is discussed in more detail in the Schedule of Compliance section of this fact sheet.

Permittees are required to select, install, and maintain appropriate BMPs. In the BMP Reference section at the end of this fact sheet are citations for publications that may be useful as guides in selecting appropriate BMPs. Permittees may select or design BMPs not discussed in those references if they are substantially equivalent and appropriate for their situations.

The discharge of storm water to any sanitary or combined sewer is prohibited. This is necessary to limit both the dilution of sanitary wastewater and the hydraulic loading of sanitary sewers and treatment plants.

All facilities are required to develop and maintain on-site a spill contingency and emergency procedures plan in accordance with WAC 173-303-350. The department has published guidance for the content of the plan in Publication 91-69, Emergency Spill Response Laws and Regulations, A Reference Guide.

This permit requires, under authority of 90.48.080, that the Permittee develop a solid waste plan to prevent solid waste from causing pollution of states waters. The plan is submitted to the local permitting agency for approval, if necessary, and to the department.

SOLID AND LIQUID WASTE DISPOSAL

The department has determined that the Permittee has a potential to cause pollution the states waters from leachate of solid waste.

Practices similar to proper sanitary landfill technology may be followed for disposal of non-hazardous waste materials. The silts recovered from settling basins may be used as soil or fill material when hazardous materials are excluded from the raw wastestream.

This section of the general permit is intended to ensure that the disposal and handling of solid or liquid wastes generated in compliance with the requirements of this general permit do not result in violation of applicable solid and hazardous waste regulations (Chapters 173-303 and 173-304 WAC). Adequate containment, collection, separation, and settling are some of the techniques for controlling

storm water or process water that may result in the generation of solid and liquid wastes. Management and housekeeping techniques could also generate solid and liquid wastes.

SCHEDULE OF COMPLIANCE

Some facilities covered by this permit may not be able to immediately meet the final limits. The department will exercise its prosecutorial discretion during the development and implementation of controls to satisfy the AKART-based limits on process and mine dewater discharges. Immediate compliance with the existing effluent limits set by the USEPA (40 CFR Parts 436 and 443) is required.

The department, exercising further prosecutorial discretion, for existing facilities may allow 30 months for the development, and an additional six months for the implementation, of controls and preventative measures in order to meet the water quality-based limits for turbidity. The compliance schedule is in accordance with WAC 173-201A-160.

The monitoring matrix in Appendix C reflects the timing of monitoring requirements in this general permit.

The department is allowing 6 months for the development of the plans required for the SWPPP and the SWPPP/ESC. An additional 6 months is allowed for implementation of the appropriate BMPs for management and source control that are part of the SWPPP and SWPPP/ESC. These BMPs include good housekeeping measures, employee training, equipment repairs, and management coordination. An additional 6 months (total of 18 months) is allowed for the implementation of the SWPPP and SWPPP/ESC at facilities that indicate that they need "capital improvements" (defined in permit) for BMPs for source control or treatment or process changes. Examples of the types of BMPs that are considered to be capital improvements are sedimentation basins, oil-water separation equipment, detention/retention basins, process changes, and containment and pump systems.

The stormwater compliance schedule and rationale are consistent with Section 402(p) of the Clean Water Act, which allows compliance schedules of up to three years after the date of issuance of the permit.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for general wastewater discharge permits issued by the department.

PERMIT MODIFICATIONS

The department may modify this permit to impose numerical limitations, if necessary to meet Water Quality Standards, Sediment Quality Standards, or Ground Water Standards, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The department may also modify this permit as a result of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

This permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the State of Washington. The department proposes that this permit be issued for five years. This permit will provide coverage for a large number of facilities not previously permitted.

SMALL BUSINESS ECONOMIC IMPACT STATEMENT (SBEIS)

The department has determined that this general permit may have significant economic impact on a number of small businesses in the state of Washington and is, therefore, preparing a SBEIS. The SBEIS includes evaluations of the economic impacts on these industries on the basis of cost estimates available from USEPA as well as other sources.

BMP REFERENCES

Washington State Department of Ecology

Storm Water Management Manual for the Puget Sound Basin, Publication 91-75

Spokane County

Guidelines for Storm Water Management. Spokane County Engineers Office, North 811 Jefferson St., Spokane, WA 99260

Washington State Department of Natural Resources, Division of Geology and Earth Resources
Surface Mine Reclamation Guide, Draft July 1992.

Barfield, B.J., R.C. Warner, and C.T. Haan

Applied Hydrology and Sedimentology for Disturbed Areas. Oklahoma Technical Press, Stillwater, Oklahoma.

Goldman, S.J.,

Erosion and Sediment Control Handbook. McGraw Hill Publishing Co., New York, New York.

Urbonas, Ben and Peter Stahre

Stormwater. Prentice Hall, Des Moines, Iowa

United States Environmental Protection Agency

NPDES Storm Water Sampling Guidance Document. USEPA Document 833-B-92-001, July 1992

United States Environmental Protection Agency

Development Document for Effluent Limitations Guidelines and Standards, Mineral Mining and Processing Industry, Point Source Category, USEPA Document 440/1-76/059b, July 1979

United States Environmental Protection Agency
Guidance Development Document Effluent Limitations Guidelines and New Source
Performance Standards for Concrete Products, Point Source Category. USEPA Document
440/1-78/090, February 1978

Environment Canada
Recommended Waste Management Practices for the Ready Mix Concrete Industry in British
Columbia. March, 1990

GENERAL REFERENCES

This fact sheet was prepared using information obtained from Washington Department of Natural Resources, Washington Department of Ecology, Washington Department of Health, Florida Department of Environmental Quality, U.S. Environmental Protection Agency, Environment Canada, and various manufacturers, operators, and trade associations, including: American Concrete Association; American Cyanamid Company; Asphalt Pavement Association; Holnam, Inc.; MasterBuilders; National Ready Mixed Concrete Association; Portland Cement Association; Washington Aggregates and Concrete Association; and W.R. Grace.

APPENDIX A: PUBLIC COMMENT AND INFORMATION

In writing this general permit, the department obtained input at scheduled public workshops at six locations in the state during January and February 1993. Written comments were accepted through March 15, 1993. All comments were reviewed and considered in the preparation of a revised fact sheet and draft general permit.

A combination of workshops and hearings were held at six locations around the state in May 1994 to obtain comments on the draft permit and revised fact sheet. A responsiveness summary was prepared and certain changes were made in the general permit based on the public comments. The date of issuance of the general permit is July 6, 1994.

The terms and conditions of the permit are subject to appeal within thirty days after issuance of this general permit. The department's decision concerning coverage of an individual discharger under the permit is subject to appeal within thirty days of the effective date of coverage of that discharger.

APPENDIX B: HOW AND WHEN TO APPLY FOR COVERAGE UNDER THE PERMIT

The Notice of Intent (NOI) is the department's general permit application document. The applicant must complete and submit the NOI to request coverage. The department may authorize coverage in writing after receipt of the NOI from the applicant. Coverage under this general permit will begin on the date of receipt by the applicant of the department's written authorization, or on the thirty-first day following receipt by the department of a completed NOI, whichever comes first. The content requirements and submission deadlines for NOIs will be included in the general permit. A responsible official of the facility, as defined in the general permit, must sign and submit the NOI to the department.

The department may provide coverage under this general permit to a site owner who is not the site operator of an industrial activity. The intent of this special condition is to provide permit coverage for projects where the owner of a stockpile or mine site awards periodic, short-term contracts to various operators for mining, crushing, and/or operating concrete or hot mix asphalt plants. Under some circumstances, the time between awarding of the contract by the site owner and the contract requirement for beginning operations by the site operator is too short to allow the site operator to fulfill the notification and planning requirements of this general permit.

A site owner may obtain coverage under the following conditions:

1. The site owner shall submit a NOI in accordance with Special Conditions S3.A and S4.A. of this general permit;
2. The site owner shall prepare all plans required in Special Condition S4. of this general permit;
3. The site owner shall submit a letter by registered mail notifying the department no less than 10 days prior to commencement of industrial activity at the site. The letter shall be sent to the regional office that issued this general permit and shall identify the site owner, site operator, type and scope of industrial activity at the site, and reference the permit under which operations will be conducted;
4. The site owner shall provide the site operator copies of the plans specified in item 3 above and require compliance with the plans; and
5. The site operator shall not begin operations until all provisions of the plans and the notification specified in items 2, 3 and 4 above have been implemented.

To accommodate those facility operators who want to apply for coverage prior to the issuance of this draft general permit, the department prepared a NOI form and will accept submission prior to issuing this general permit. Operators who submit a NOI prior to issuance of this general permit may submit a written request for cancellation of the NOI after the permit is issued if the facility does not meet the requirements for coverage.

Copies of the NOI form may be requested by contacting the Water Quality Permit Coordinator at the nearest Ecology Regional Office, as determined by the county in which the facility is located:

REGIONAL OFFICE ADDRESS

Washington State Dept of Ecology
Central Regional Office
106 South 6th Avenue
Yakima, WA 98902-3378
Attn: Water Quality Permit Coordinator
Phone (509) 575-2490
TDD (509) 454-7673

Washington State Dept of Ecology
Eastern Regional Office
North 4601 Monroe, Suite 202
Spokane, WA 99205-1295
Attn: Water Quality Permit Coordinator
Phone (509) 456-2926
TDD (509) 458-2055

Washington State Dept of Ecology
Northwest Regional Office
Mail Stop NB-81
3190 160th Avenue Southeast
Bellevue, WA 98008-5452
Attn: Water Quality Permit Coordinator
Phone (206) 649-7000
TDD (206) 649-4259

Washington State Dept of Ecology
Southwest Regional Office
Abbot Raphael Hall
Saint Martin's Campus (Lacey)
Post Office Box 47775
Olympia, WA 98504-7775
Attn: Water Quality Permit Coordinator
Phone (206) 407-6300
TDD (206) 407-6306

COUNTY IN WHICH
FACILITY IS LOCATED

Benton
Chelan
Douglas
Kittitas

Klickitat
Okanogan
Yakima

Adams
Asotin
Columbia
Ferry
Franklin
Garfield
Grant

Lincoln
Pend Oreille
Spokane
Stevens
Walla Walla
Whitman

Island
King
Kitsap
San Juan

Skagit
Snohomish
Whatcom

Clallam
Clark
Cowlitz
Grays Harbor
Jefferson
Lewis

Mason
Pacific
Pierce
Skamania
Thurston
Wahkiakum

APPENDIX C

WASTEWATER MONITORING MATRIX

All parameters except type 3 storm water are monitored on a minimum monthly frequency whenever the activities occur at the facility. Type 3 storm water is to be monitored quarterly for turbidity and pH, and annually for other required parameters.

Activity or Operation	SIC Codes	Fate of Discharge (An unlined impoundment is one type of discharge to ground water)	Parameter to begin monitoring after 3 months	Parameters to begin monitoring after 36 months
aggregate or mineral washing, mine dewatering, other process water and discharge of type 3 storm water	1422 1423 1429 1442 1446	to surface water or storm drains flowing to surface waters	pH TSS Turbidity	TPH Nitrate (if applicable)
		to land or ground (ground water)	pH	TPH Nitrate (if applicable)
aggregate or mineral washing, other process water	1411 1455 1459 1499	to land or ground (ground water)	pH	TDS TPH pH Nitrate (if applicable)
mine dewatering and type 3 storm water	1411 1455 1459 1499	to surface water or storm drains flowing to surface waters	pH TSS Turbidity	TPH Nitrate (if applicable)
		to land or ground (ground water)	pH	TDS TPH Nitrate (if applicable) pH
Truck washout or other process water	3273	to surface water or storm drain flowing to surface waters	pH TSS Turbidity	TPH TDS Oil & Grease Chloride Sulfate Alkalinity Nitrate
		to land or ground (ground water)	pH	TPH TDS Chloride Sulfate Alkalinity Nitrate
Scrubber wastewater, truck washout or other process water and type 3 storm water	2951	to land or ground (ground water)	pH	pH TPH TDS Oil & Grease